

Serial No. 10/665,108
June 23, 2004
Reply to the Office Action dated March 1, 2004
Page 2 of 7

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (canceled).

Claim 2 (currently amended): A high-voltage transformer according to Claim 413, wherein the diameter of the hole for holding the core increases from a center thereof to both ends of the secondary coil.

Claim 3 (currently amended): A high-voltage transformer according to Claim 413, wherein the core is a horseshoe-shaped ferrite core with a substantially square sectional configuration.

Claim 4 (currently amended): A high-voltage transformer according to Claim 413, wherein a plurality of flanges are arrayed along the central axis of the core to define the at least three winding grooves.

Claim 5 (original): A high-voltage transformer according to Claim 4, wherein nine of the flanges and eight of the winding grooves are provided.

Claim 6 (original): A high-voltage transformer according to Claim 4, wherein the flanges are substantially square shaped.

Claim 7 (original): A high-voltage transformer according to Claim 4, further comprising bases disposed on two outermost flanges of the plurality of flanges.

Serial No. 10/665,108
June 23, 2004
Reply to the Office Action dated March 1, 2004
Page 3 of 7

Claim 8 (original): A high-voltage transformer according to Claim 7, wherein the bases include terminals disposed thereon.

Claims 9 and 10 (canceled).

Claim 11 (currently amended): A high-voltage transformer according to Claim 413, wherein a vertical section of the hole in the bobbin for holding the core includes taper sections ~~having that~~ increase from a center to both ends of the secondary coil.

Claim 12 (canceled).

Claim 13 (currently amended): ~~A high-voltage transformer according to Claim 1,~~
A high-voltage transformer comprising:
a core having a central axis;
a bobbin having a hole for holding the core and at least three winding grooves
arrayed along the central axis of the core;
primary coils wound around outermost winding grooves among said at least three
winding grooves; and
a secondary coil wound around a winding groove other than the outermost
winding grooves, the secondary coil being connected to diodes at both ends;
wherein the winding grooves near the center of the core are deeper than the winding grooves located near both ends of the core.

Claim 14 (currently amended): A high-voltage transformer according to Claim 413, wherein a plurality of ribs are arranged to protrude from inner surfaces of the bobbin toward surfaces of the core.